# Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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212 N Crate 5 Repackage Efforts



Project L-626, "100B Area Export Water System Reliability Enhancements, " minimizes the chances of an event that could disrupt the flow of Export Water to the 200 Area Plateau

#### **Overview**

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford.* There are three major components to this work scope:

- Central Plateau Remediation (CPR) (R. E. Wilkinson),
- Waste Sites Remediation (B. H. Ford), and
- Reliability Projects (R. G. Slocum).

NOTE: Unless otherwise noted, all information contained herein is as of the end of February 2007.

# **Notable Accomplishments**

#### PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

#### Central Plateau D&D:

#### 200-UW-1 U Plant Zone Waste Site Remediation

- Draft Record of Decision (ROD) completed and transmitted for review.
- Obtained internal authorization to initiate treatability test plan for 216-U-8 engineered barrier, deep vadose characterization, and W-42 pipeline characterization >15'.
- 241-U-361 Tank Phase II Sampling and Analysis Plan (SAP) approved; currently resolving comments to Work Control Plan (WCP).

#### **U** Plant

 A contract for Grout Engineering Consulting Services for Canyon Void Fill and Grout Study has been awarded.

#### 200 North Sites - Remove, Treat and Dispose (RTD)

- Remedial Action Work Plan approved.
- Mobilization and set up of gueue.
- Completed Characterization Sampling on 216-N-2, 3, 5, and 7.

#### 212-N Facility

- Reinforced and retrieved two more crates (#7 and #8). Five out of 15 crates have been retrieved
- Started repackaging of damaged crate #5.
- Fabrication of the transportation containers for crate shipments is being completed ahead of schedule. Nine containers have been delivered to-date.

#### **PUREX and Canyons**

- Initiated preparation of a Multi-Canyon Project Management Plan.
- Initiated the PUREX Data Quality Objective process.

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# **Notable Accomplishments (continued)**

#### PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

#### Waste Sites Remediation:

- Completed surface radiological surveys and geophysical logs in the BC Controlled Area.
- Transmitted Draft "B" 200-TW-1/2 work plan addendum for BC Cribs and Trenches Treatability Test to RL.
- The M-15 TPA change package was approved on February 27, 2007.

#### **Reliability Projects:**

- Realigned 87 electrical poles and replaced one damaged by recent heavy wind storms.
- Completed evaluation of 530 Sections of 2005 Energy Policy Act (EPACT) to determine applicability to Fluor Hanford.
  - Twenty sections determined to be applicable

# FY 2007 Funds vs. Spend Forecast (\$M)

		Projected FY 2007 Funding	FY 2007 Fiscal Year Spend Forecast	Variance
RL-0040	Nuclear Facility D&D, Remainder of Hanford	\$ 69.3	\$ 64.8	\$ 4.6

# FY 2007 Schedule/Cost Performance (\$M)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0040	Nuclear	\$20.2	\$18.6	\$17.7	-\$1.6	-7.8%	\$0.9	5.0%	\$66.9
	Facility D&D,								
	Remainder of								
	Hanford								
	Total	\$20.2	\$18.6	\$17.7	-\$1.6	-7.8%	\$0.9	5.0%	\$66.9

#### Schedule Performance (-\$1.6M/-7.8%):

The unfavorable schedule variance (SV) for Central Plateau D&D Project (CP D&D) (-\$0.7M) is due to:

- Delays in U-Canyon Studies (-\$0.2M) is due to additional/new information which is increasing the duration
  of assembling background data and delays in obtaining outside resources needed to perform studies.
  Impacts and corrective actions: None. Subcontracts have been placed and the studies will be completed
  on schedule.
- Delays have been encountered in Surveillance and Maintenance (-\$0.4M) for corrective maintenance
  activities (e.g., B Plant/PUREX filter change outs, and REDOX/U Plant fan replacements) due to resources
  supporting the 212N hazard reductions. Materials are expected in March and this variance should correct
  by the end of the year. Impact and corrective actions: The corrective maintenance activities will be
  rephased to integrate with the increased support required by 212N due to deterioration of the crates.

# FY 2007 Schedule/Cost Performance (\$M), continued

#### Schedule Performance, continued:

The unfavorable schedule variance (SV) for Central Plateau D&D Project (CP D&D) (-\$0.7M) is due to:

- Delays in the ROD approval for 200-UW-1, U Zone Waste Site Remediation (-\$0.2M), which has caused further delays in barrier construction for the 216-U-8 and 216-U-12 cribs; this is offset by favorable progress on the 241-U-361 Tank sampling. Impacts and corrective actions: Due to changes in the ROD approach, the baseline will be revised to include new work scope associated with the deep vadose zone characterization and treatability test; and defer 216-U-12 barrier.
- Delays in 200 North Waste Site remediation as a result of regulatory approvals (RAWP) taking longer then planned. Impacts and corrective actions: The RAWP has been approved by Ecology and site preparation and mobilization activities have been initiated.

The unfavorable SV in Waste Sites (-\$1.2M) is due to the following:

- BC Cribs work completed in prior years (-\$0.1M). Impacts and recovery actions: None.
- Delays in PW-2/4 and LW-1 (-\$0.2M) due to activities being placed on hold pending the M-15 TPA baseline revision. Impacts: None; approve and implement the M-15 BCR.
- Delays in MW-1 (\$-0.2M) due to workscope being tied to the decommissioning of the A-4 borehole being performed and progressed under the 200-PO-1 OU CCL. Impacts: None; this will be resolved with the approval and implementation of the M-15 BCR.
- Delays in SW-2 collaborative DQO which is taking longer than planned due to a large number of regulatory participants, issues and concerns; resources focusing on DQO causing additional delays in other SW-2 scope (work plan, modeling, and data management and passive vapor sampling) (-\$0.5M). Impacts and recovery: based on assessments by the project lead, recovery of this schedule variance will be possible only with a baseline revision.
- Delays in IS-1 pipeline mapping due to lack of resources (-\$0.1M). Impacts and recovery actions: None.
- Delays in engineering studies/miscellaneous (-\$0.1M). Impacts and recovery actions: None.

The favorable SV for Reliability Projects (+\$0.4M) is primarily due to progress earned for completion of prior year projects in the current fiscal year (i.e., non-regulated guzzler and rescue truck procurements, and L-598, Near Term Repairs – Four Repeater Facilities).

#### Cost Performance (+0.9M/+5.0%):

The favorable cost variance (CV) for CP D&D (+\$0.9M) is primarily due to:

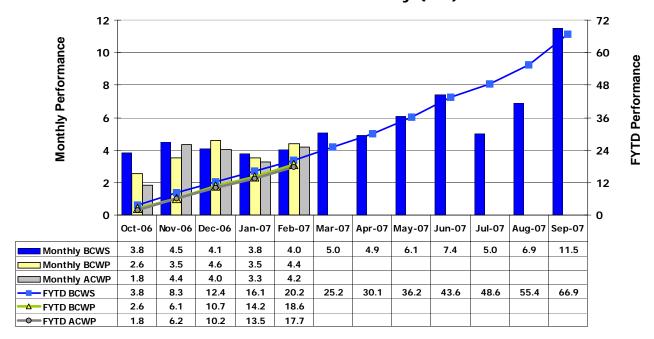
- Efficiencies in U-361 Tank sampling, correction of contract accrual for ERDF cost associated with W-42 pipeline removal, partially offset by lagging FY 2006 W-42 Pipeline removal equipment and rental costs (+\$0.5M),
- The demolition of ten facilities was completed in February; however, lagging rental equipment charges and waste disposal invoices have resulted in a temporary favorable cost variance (+\$0.3M),
- Efficiencies associated with completion of FY 2006 NESHAPs and receipt of PUREX HEPA filters that were not costed due to being placed in a spare parts inventory pool (+\$0.4M), and
- Offset by lagging relocation costs and costs associated with EIR preparation (-\$0.2M) and increased sampling cost associated with the 200 North Waste Site remediation (-\$0.1M).

The favorable CV for Waste Sites (+\$0.5M) is due to drilling progress at the A-4 borehole.

The unfavorable CV for Reliability Projects (-\$0.4M) is primarily due to incremental cost for 300 Area Facilities/ 100N Lagoon alternative studies, 2005 Energy Policy Act impact analysis, External Independent Reviews (EIR), and L-325A, Install 13.8kV Tie Line from A8 to A7 Substation, project closeout activities, including tie-line testing and field remediation activities. A baseline change request (BCR) was recently approved by RL to address the cost of 2005 Energy Policy Act impact analysis. In addition, current spending projections and the placement of several projects on hold will offset potential cost overruns.

# FY 2007 Schedule/Cost Performance (\$M), continued

# Performance Analysis FYTD and Monthly (\$M)



# Milestones/Performance Objectives Achievement

PBS	MSN	Milestone Title	Туре	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	M-015-45A	Submit 200-PW-1 OU Remedial Investigation Report	HQ	10/31/06	9/28/06		Completed ahead of schedule
RL-0040	M-091-40L-012	Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2007)	HQ	12/1/06	11/1/06		Completed ahead of schedule
RL-0040	M-091-40L-013	Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2007)	HQ	3/15/07	2/13/07		Completed ahead of schedule
RL-0040	M-015-46B	Chemical Laboratory Waste OUs Feasibility Study	HQ	3/31/07		12/31/11	Behind schedule. M-15 tentative agreement changes date to 2011.
RL-0040	RL40.3a CPDD-07-011	Project Execution Plan reflective of an integrated groundwater source approach	RL	3/31/07			On schedule
RL-0040	RL40.2a CPDD-07-009	Draft "A" Excavation Treatability Test plan (including SAP) for the 200 Area BC Cribs and Trenches	RL	5/31/07			On schedule
RL-0040	M-091-40L-014	Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2007)	HQ	6/15/07			On schedule

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# Milestones/Performance Objectives Achievement, continued

PBS	MSN	Milestone Title	Туре	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	MR.RL40.9c CPDD-07-001	Safety basis document defining appropriate controls to allow disposition of U Plant Cell 30 tank contents	RL	6/30/07			On schedule
RL-0040	MR.RL40.11 CPDD-07-002	Ten High Risk Industrial Facilities Demolished to Slab on Grade	RL	6/30/07	2/12/07		Completed ahead of schedule
RL-0040	MR.RL40.9a CPDD-07-003	U Plant Canyon Facility Waste Acceptance Study	RL	6/30/07			On schedule
RL-0040	MR.RL40.12 CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	RL	6/30/07		TBD	Forecast behind schedule - evaluating path forward
RL-0040	MR.RL40.9b D&D-07-001	U Plant Accelerated Closure Engineering Studies		6/30/07			On schedule
RL-0040	MR.RL40.10 CPDD-07-005	Three 200-CW-3, 200 North Cooling Water Group, waste sites remediated under the remove, treat, and dispose alternative	RL	7/31/07			On schedule
RL-0040	M-091-40L-015	M-91-40L.4C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2007)	HQ	8/31/07			On schedule
RL-0040	M-015-45B CPDD-07-006	Submit Draft A Feasibility Study and Proposed Plan for the 200-PW-1/3/6 Operable Unit Group.	HQ	9/30/07			On schedule
RL-0040	RL40.3b CPDD-07-007	Central Plateau Cleanup and Configuration Control Specification document	RL	9/30/07			On schedule